IN THE CLAIMS

Please add claims 24-26 and amend claims 1-3, 9-11, and 17-19 as follows.

1. (Currently Amended) A method for fast address calculation comprising:

   receiving a transfer request which corresponds ~~corresponding~~ to a block of data, wherein said block comprises a plurality of sub-blocks, said transfer request comprising an address and a mask which indicates which of said sub-blocks are required as part of the request;

   generating ~~an~~ a different address ~~corresponding to~~ for each of said sub-blocks in response to receiving the transfer request;

   detecting which of said sub-blocks are required as part of said transfer request; and

   utilizing only those generated addresses which correspond to the sub-blocks which are required.

2. (Currently Amended) The method of claim 1, ~~further comprising receiving a mask which corresponds to the request, wherein the mask indicates which of said sub-blocks are required as part of the request, and~~ wherein detecting which of said sub-blocks are required comprises examining said mask.

3. (Currently Amended) The method of claim 2, wherein said mask comprises a separate bit ~~corresponding to~~ for each of said sub-blocks, wherein a bit with a first value indicates ~~said~~ a corresponding sub-block is required, and wherein a bit with a second value indicates ~~said~~ a corresponding sub-block is not required.

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4. (Original) The method of claim 1, wherein said request includes an address corresponding to said block, and wherein said transfer comprises transferring one of said sub-blocks at a time.

5. (Original) The method of claim 1, wherein each of said addresses corresponding to said sub-blocks are generated concurrently.

6. (Original) The method of claim 3, wherein said detecting comprises:

   detecting a first bit of said mask which has a first value, wherein said first bit corresponds to a first sub-block; and

   selecting a first address of said generated addresses which corresponds to the first sub-block.

7. (Original) The method of claim 6, wherein said detecting further comprises: masking off said first bit of said mask, subsequent to utilizing said first address;

   detecting a second bit of said mask which has a first value, wherein said second bit corresponds to a second sub-block; and

   selecting a second address of said generated addresses which corresponds to the second sub-block.

8. (Original) The method of claim 1, further comprising:

   determining a first number of said sub-blocks are required; and

   detecting transfer of all said required sub-blocks are complete, in response to detecting a number of sub-blocks equal to said first number have been transferred.

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9. (Currently Amended)A device for reducing data transfer latency comprising:

a first interface configured to receive a transfer request, wherein said request corresponds to a block of data comprising a plurality of sub-blocks, said transfer request comprising an address and a mask which indicates which of said sub-blocks are required as part of the request;

a second interface, wherein said second interface is configured to:

generate ~~an~~ a different address ~~corresponding to~~ for each of said sub-blocks in response to receiving the transfer request;

detect which of said sub-blocks are required as part of said transfer request; and

utilize only those generated addresses which correspond to the sub-blocks which are required.

10. (Currently Amended)The device of claim 9, ~~wherein said first interface is further configured to receive a mask corresponding to the request, wherein the mask indicates which of said sub-blocks are required as part of the request, and~~ wherein said second interface is further configured to detect which of said sub-blocks are required by examining said mask.

11. (Currently Amended)The device of claim 10, wherein said mask comprises a separate bit ~~corresponding to~~ for each of said sub-blocks, wherein a bit with a first value indicates said corresponding sub-block is required, and wherein a bit with a second value indicates said corresponding sub-block is not required.

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12. (Original) The device of claim 9, wherein said request includes an address corresponding to said block, and wherein said second interface is configured to initiate transfer of only one of said sub-blocks at a time.

13. (Original) The device of claim 9, wherein said second interface is configured to generate each of said addresses corresponding to said sub-blocks concurrently.

14. (Original) The device of claim 11, wherein said second interface is configured to detect which of said sub-blocks are required by:

   detecting a first bit of said mask which has a first value, wherein said first bit corresponds to a first sub-block; and

   selecting a first address of said generated addresses which corresponds to the first sub-block.

15. (Original) The device of claim 14, wherein said second interface is further configured to detect said required sub-blocks by:

   masking off said first bit of said mask, subsequent to utilizing said first address;

   detecting a second bit of said mask which has a first value, wherein said second bit corresponds to a second sub-block; and

   selecting a second address of said generated addresses which corresponds to the second sub-block.

16. (Original) The device of claim 9, wherein said second interface is further configured to:

   determine a first number of said sub-blocks are required; and

detect transfer of all said required sub-blocks are complete, in response to

detecting a number of sub-blocks equal to said first number have been

transferred.

17. (Currently Amended)A system comprising:

a control unit, wherein said control unit is configured to control access to a

plurality of blocks of data, wherein each of said blocks of data comprise a

plurality of sub-blocks, and wherein said control unit is not configured to

convey a full block of said blocks of data at one time;

a first interface coupled to said control unit, wherein said interface is configured

to:

receive a transfer request, wherein said request corresponds to a first block

of said blocks of data, said transfer request comprising an address

and a mask which indicates which of said sub-blocks are required

as part of the request;

generate an a different address corresponding to each sub-block of said

first block in response to receiving the transfer request;

detect which of said sub-blocks are required as part of said transfer

request; and

utilize only those generated addresses which correspond to the sub-blocks

which are required.

18. (Currently Amended)The system of claim 17, wherein said first interface is

further configured to:

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~~receive a mask corresponding to said request, wherein the mask indicates which of said sub-blocks are required as part of the request; and~~

detect which of said sub-blocks are required by examining said mask.

19. (Currently Amended)The system of claim 18, wherein said mask comprises a plurality of bits, each of which correspond to a <u>different</u> sub-block of said first block, wherein a bit with a first value indicates said corresponding sub-block is required, and wherein a bit with a second value indicates said corresponding sub-block is not required.

20. (Original) The system of claim 17, wherein said first interface is configured to generate each of said addresses corresponding to said sub-blocks concurrently.

21. (Original) The system of claim 19, wherein said first interface is configured to detect which of said sub-blocks are required by:

    detecting a first bit of said mask which has a first value, wherein said first bit corresponds to a first sub-block; and

    selecting a first address of said generated addresses which corresponds to the first sub-block.

22. (Original) The system of claim 21, wherein said first interface is further configured to:

    mask off said first bit of said mask, subsequent to utilizing said first address;

    detect a second bit of said mask which has a first value, wherein said second bit corresponds to a second sub-block; and

select a second address of said generated addresses which corresponds to the second sub-block.

23. (Original) The system of claim 17, wherein said first interface is further configured to:

determine a first number of said sub-blocks are required; and

detect transfer of all said required sub-blocks are complete, in response to detecting a number of sub-blocks equal to said first number have been transferred.

24. (New) The method of claim 1, wherein a number of sub-blocks required as part of the transfer request is equal to a sum of the number of bits which are asserted in the mask.

25. (New) The device of claim 9, wherein a number of sub-blocks required as part of the transfer request is equal to a sum of the number of bits which are asserted in the mask.

26. (New) The system of claim 17, wherein a number of sub-blocks required as part of the transfer request is equal to a sum of the number of bits which are asserted in the mask.